

This listing of claims will replace all prior versions,
and listings, of claims in the application:

1 Claim 1 (original): A stereoscopic image projection
2 device comprising:
3 a plurality of image projecting means which, on the
4 basis of image signals for one eye and another eye,
5 project images for the one eye and the other eye which
6 have parallax;
7 image display means for displaying the images
8 projected from the plurality of image projecting means;
9 viewing means for dividing and enabling viewing, at
10 the one eye and at the other eye respectively, of
11 two-dimensional images for the one eye and the other eye
12 which are displayed on the image display means; and
13 correction processing means for carrying out
14 correction processing on at least one of image signals
15 for the one eye and the other eye, on the basis of an
16 amount of correction of image distortion determined on
17 the basis of the image displayed on the image display
18 means.

1 Claim 2 (original): A stereoscopic image projection
2 device according to claim 1, further comprising:
3 pick-up means for correction for picking-up an image
4 projected on the image display means, for correction; and
5 correction computing means for determining, by
6 computation, an amount of correction of image distortion
7 from picked-up image data,
8 wherein the correction processing means carries out
9 correction processing on image signals for the one eye
10 and the other eye or on an image signal for one of the

11 one eye and the other eye, on the basis of the amount of
12 correction determined by the correction computing means.

1 Claim 3 (original): A stereoscopic image projection
2 device according to claim 2, further comprising:
3 a plurality of first polarizing means through which
4 passes only light of a given polarization direction for
5 each eye from image lights for the one eye and the other
6 eye which are projected from the plurality of image
7 projecting means,
8 wherein, by using polarized light, the viewing means
9 divides and enables viewing, at the one eye and at the
10 other eye respectively, two-dimensional images for the
11 one eye and the other eye which are displayed on the
12 image display means.

1 Claim 4 (currently amended): A stereoscopic image
2 projection device comprising:
3 a plurality of image projecting means which, on the
4 basis of image signals for one eye and another eye,
5 project images for the one eye and the other eye which
6 have parallax;
7 a plurality of first polarizing means through which
8 passes only light of a given polarization direction for
9 each eye from image lights for the one eye and the other
10 eye which are projected from the plurality of image
11 projecting means;
12 image display means for displaying the images
13 projected from the plurality of image projecting means;
14 viewing means for dividing and enabling viewing, at
15 the one eye and at the other eye respectively, of
16 two-dimensional images for the one eye and the other eye

17 which are displayed on the image display means, and
18 wherein, by using polarized light, the viewing means
19 divides and enables viewing, at the one eye and at the
20 other eye respectively, two-dimensional images for the
21 one eye and the other eye which are displayed on the
22 image display means;

23 pick-up means for correction for picking-up an image
24 projected on the image display means, for correction
25 ~~A stereoscopic image projection device according to claim~~
26 ~~3~~, wherein the pick-up means for correction includes:

27 pick-up means having functions of carrying
28 out pick-up of an image for correction and
29 temporarily accumulating image data;

30 a second polarizing means through which
31 only light of a given polarization direction
32 passes;

33 rotating means for automatically rotating
34 the second polarizing means a predetermined
35 angle;

36 rotation control means for controlling of
37 the rotating means; and

38 pick-up times counting means for sensing
39 completion of pick-up of the image for
40 correction, counting a number of times pick-up
41 is carried out, and stopping pick-up by the
42 pick-up means when the number of times pick-up
43 is carried out has reached a given number of
44 times;

45 correction computing means for determining, by
46 computation, an amount of correction of image distortion
47 from picked-up image data; and

48 correction processing means for carrying out
49 correction processing on at least one of image signals
50 for the one eye and the other eye, on the basis of an
51 amount of correction of image distortion determined on
52 the basis of the image displayed on the image display
53 means and wherein the correction processing means carries
54 out correction processing on image signals for the one
55 eye and the other eye or on an image signal for one of
56 the one eye and the other eye, on the basis of the amount
57 of correction determined by the correction computing
58 means.

1 Claim 5 (original): A stereoscopic image projection
2 device according to claim 2, further comprising:
3 a plurality of first shutter means for repeatedly
4 carrying out, at high speed, operations of allowing
5 passage of and blocking passage of image lights for the
6 one eye and the other eye which are projected from the
7 plurality of image projecting means;
8 shutter controlling means for controlling operations
9 of the plurality of first shutter means and the pick-up
10 means for correction; and
11 correction start signal generating means for
12 generating a correction start signal, and for making the
13 shutter control means and the pick-up means for
14 correction start operations for correction.

1 Claim 6 (original): A stereoscopic image projection
2 device according to claim 5, wherein the image viewing
3 means has a plurality of second shutter means for the one
4 eye and the other eye which repeatedly open and close at

5 high speed synchronously with the plurality of first
6 shutter means for the one eye and the other eye.

1 Claim 7 (currently amended): A stereoscopic image
2 projection device comprising:

3 a plurality of image projecting means which, on the
4 basis of image signals for one eye and another eye,
5 project images for the one eye and the other eye which
6 have parallax;

7 a plurality of first shutter means for repeatedly
8 carrying out, at high speed, operations of allowing
9 passage of and blocking passage of image lights for the
10 one eye and the other eye which are projected from the
11 plurality of image projecting means;

12 image display means for displaying the images
13 projected from the plurality of image projecting means;

14 viewing means for dividing and enabling viewing, at
15 the one eye and at the other eye respectively, of
16 two-dimensional images for the one eye and the other eye
17 which are displayed on the image display means;

18 pick-up means for correction for picking-up an image
19 projected on the image display means, for correction

20 ~~A stereoscopic image projection device according to claim~~
21 ~~5, wherein the pick-up means for correction includes:~~

22 pick-up means having functions of carrying
23 out pick-up of an image for correction and
24 temporarily accumulating image data;

25 pick-up control means for controlling the
26 pick-up means; and

27 pick-up times counting means for sensing
28 completion of pick-up of the image for
29 correction, counting a number of times pick-up

30 is carried out, and stopping pick-up by the
31 pick-up means when the number of times pick-up
32 is carried out has reached a certain number of
33 times;
34 shutter controlling means for controlling operations
35 of the plurality of first shutter means and the pick-up
36 means for correction;
37 correction start signal generating means for
38 generating a correction start signal, and for making the
39 shutter control means and the pick-up means for
40 correction start operations for correction;
41 correction computing means for determining, by
42 computation, an amount of correction of image distortion
43 from picked-up image data; and
44 correction processing means for carrying out
45 correction processing on at least one of image signals
46 for the one eye and the other eye, on the basis of an
47 amount of correction of image distortion determined on
48 the basis of the image displayed on the image display
49 means, wherein the correction processing means carries
50 out correction processing on image signals for the one
51 eye and the other eye or on an image signal for one of
52 the one eye and the other eye, on the basis of the amount
53 of correction determined by the correction computing
54 means.

1 Claim 8 (original): A stereoscopic image projection
2 device according to claim 1, wherein the image projecting
3 means carries out image display with a number of primary
4 colors which is greater than a usual number of three
5 primary colors, by the image projecting means utilizing
6 plural devices which emit lights of primary colors having

7 different wavelength bands, in order to display an image
8 for one eye.

1 Claim 9 (original): A correction amount computing device
2 of a stereoscopic image projection device having:

3 a plurality of image projecting means which, on the
4 basis of image signals for one eye and another eye,
5 project images for the one eye and the other eye which
6 have parallax;

7 image display means for displaying the images
8 projected from the plurality of image projecting means;

9 viewing means for dividing an enabling viewing, at
10 the one eye and at the other eye respectively,
11 two-dimensional images for the one eye and the other eye
12 which are displayed on the image display means; and

13 correction processing means for carrying out
14 correction processing on at least one of image signals
15 for the one eye and the other eye, on the basis of an
16 amount of correction of image distortion determined on
17 the basis of the image displayed on the image display
18 means,

19 wherein the correction amount computing device of a
20 stereoscopic image projection device comprises:

21 pick-up means for correction for picking-up an image
22 projected on the image display means, for correction; and

23 correction computing means for computing a
24 correction amount for correcting image distortion from
25 picked-up image data, and outputting the correction
26 amount to the correction processing means.

1 Claim 10 (original): A correction amount computing
2 device of a stereoscopic image projection device
3 according to claim 9, further comprising:

4 a plurality of polarizing means through which passes
5 only light of a given polarization direction for each eye
6 from image lights for the one eye and the other eye which
7 are projected from the plurality of image projecting
8 means,

9 wherein, by using polarized light, the viewing means
10 divides and enables viewing, at the one eye and at the
11 other eye respectively, two-dimensional images for the
12 one eye and the other eye which are displayed on the
13 image display means.

1 Claim 11 (original): A correction amount computing
2 device of a stereoscopic image projection device
3 according to claim 9, further comprising:

4 a plurality of shutter means for repeatedly carrying
5 out, at high speed, operations of allowing passage of and
6 blocking passage of image lights for the one eye and the
7 other eye which are projected from the plurality of image
8 projecting means;

9 shutter controlling means for controlling operations
10 of the plurality of shutter means and the pick-up means
11 for correction; and

12 correction start signal generating means for
13 generating a correction start signal, and for making the
14 shutter controlling means and the pick-up means for
15 correction start operations for correction.

1 Claim 12 (original): A correction amount computing
2 device of a stereoscopic image projection device

3 according to claim 9, wherein the image projecting means
4 carries out image display with a number of primary colors
5 which is greater than a usual number of three primary
6 colors, by the image projecting means utilizing plural
7 devices which emit lights of primary colors having
8 different wavelength bands, in order to display an image
9 for one eye.

1 13. The stereoscopic image projection device of claim 1
2 wherein the image signals for one eye and another eye
3 include a first image signal and a second image signal,
4 wherein the plurality of image projection means
5 include a first projection means receiving the first
6 image signal but not the second image signal, and a
7 second projection means receiving the second image signal
8 but not the first image signal, and
9 wherein images projected by the first and second
10 projection means combine to define a stereoscopic image
11 on the image display means.

1 14. The stereoscopic image projection device of claim 1
2 wherein the plurality of image projection means are
3 arranged with respect to one another and with respect to
4 the image display means to project images having areas,
5 and
6 wherein a majority of the areas of said images
7 overlap on the image display means.

1 15. The stereoscopic image projection device of claim 1
2 wherein the plurality of projectors are angled with
3 respect to one another so that the projected images are
4 non-parallel, and

5 wherein the image distortion corrected by the
6 correction processing means is parallax error due to the
7 angling of the projectors.